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KNOWINK, LLC'S POLL PAD 3
Version 2.4.8.01

Apple iPad, Generation 5, 32 Gigabyte
Apple iPad, Generation 6, 32 Gigabyte
Apple iPad, Generation 6, 32 Gigabyte (Cellular)
Apple iPad, Generation 6, 128 Gigabyte
Apple iPad Air 2, 16 Gigabyte
iOS, Version 12.1.4
Poll Pad 3 Application, Version 2.4.8.01
Star Micronics Printer, Model TSP650II
Star Micronics Printer, Model TSP700II
ePulse, Version 2.4.8.01

Staff Report

Prepared by:
Secretary of State's Office of
Voting Systems Technology Assessment

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Table of Contents

I. INTRODUCTION

1. Scope

This report presents the test results for all phases of the certification test of the KNOWINK Poll Pad 3, Version 2.4.8.01 (Poll Pad 3). The purpose of the testing is to test the compliance of the electronic poll book with California laws. Testing also uncovers other findings, which do not constitute non-compliance, and those findings are reported to the electronic poll book vendor to address the issues procedurally. The procedures for mitigating any additional findings are made to the documentation, specifically the KNOWINK Poll Pad 3 Use Procedures.

2. Summary of the Application

KNOWiNK submitted an application for the Poll Pad 3 system on February 27, 2019. The system is comprised of the following major components:

- Apple iPad, Generation 5, 32 Gigabyte
- Apple iPad, Generation 6, 32 Gigabyte
- Apple iPad, Generation 6, 32 Gigabyte (Cellular)
- Apple iPad, Generation 6, 128 Gigabyte
- Apple iPad Air 2, 16 Gigabyte
- iOS, Version 12.1.4
- Poll Pad 3 Application, Version 2.4.8.01
- Star Micronics Printer, Model TSP650II
- Star Micronics Printer, Model TSP700II
- ePulse, Version 2.4.8.01

In addition to these major components, which includes the executable code and the source code, KNOWiNK was required to submit the following: (1) the technical documentation package (TDP); (2) all the hardware components to field two complete working versions of the system, including all peripheral devices, one for the Functional Test Phase and one for the Security and Telecommunications Penetration Test Phase; (3) all the peripherals that would be in the polling place; and (4) the KNOWiNK Poll Pad 3 Use Procedures.

3. Contracting and Consulting

Upon receipt of a complete application, the Secretary of State released a Request for Quote (RFQ) for assistance with the software, security and telecommunications and accessibility testing. The statement of work (SOW) also had an option for the Secretary of State to use the awarded contractor for additional software, security and telecommunications and accessibility testing, if it deemed necessary.

Through the formal California contracting process, the Secretary of State awarded a contract to SLI Compliance.

II. SUMMARY OF THE SYSTEM

The system consists of ten (10) components:

1. **Apple iPad, Generation 5, 32 Gigabyte**
   The iPad 5 comes with 32GB of storage capacity and is Wi‑Fi, and Bluetooth 4.2 technology compliant.

2. **Apple iPad, Generation 6, 32 Gigabyte**
   The iPad 6 comes with 32GB of storage capacity and is Wi‑Fi, and Bluetooth 4.2 technology compliant.

3. **Apple iPad, Generation 6, 32 Gigabyte (Cellular)**
   The iPad 5 comes with 32GB of storage capacity and is cellular, Wi‑Fi, and Bluetooth 4.2 technology compliant.

4. **Apple iPad, Generation 6, 162 Gigabyte**
   The iPad 5 comes with 162GB of storage capacity and is Wi‑Fi, and Bluetooth 4.2 technology compliant.

5. **Apple iPad Air 2, 16 Gigabyte**
   The iPad Air 2 comes with 16GB of storage capacity and is Wi‑Fi, and Bluetooth 4.2 technology compliant.

6. **iOS, Version 12.1.4**
   iOS is an Apple, Inc. mobile operating system exclusively for its hardware. It is the operating system that presently powers many of the company's mobile devices.

7. **Poll Pad 3 Application, Version 2.4.8.01**
   The Poll Pad 3 solution provides an electronic voter check-in and verification process for election officials. Poll Pad 3 is an Apple iPad application requiring no appendages for operation. The application also provides built-in election management tools, reporting tools and customizable workflows.

8. **Star Micronics Printer, Model TSP650II**
   Star Micronics' TSP650II receipt printer is offered with a variety of interface options and is an iOS compatible Bluetooth printer.

9. **Star Micronics Printer, Model TSP700II**
   Star Micronics' TS700II receipt printer is offered with a variety of interface options and is an iOS compatible Bluetooth printer.

10. **ePulse, Version 2.4.8.01**
    ePulse is a web-based monitoring platform that connects polling places to the centralized location and facilitates communication between administrators and poll workers. It connects poll books, provides polling place status, enables trouble resolution, provides secure voter data management, and allows for poll worker supervision.

III. TESTING INFORMATION AND RESULTS

1. Background

KNOWiNK submitted an application to the Secretary of State for certification of the KNOWiNK Poll Pad 3, Version 2.4.8.01 on February 27, 2019.

State examination and functional testing of this system was conducted by Secretary of State Staff in conjunction with the State's technical consultant SLI Compliance. The configuration of the equipment was conducted at the Secretary of State's office in Sacramento, California on September 9, 2019. Functional Testing was performed by Secretary of State Staff from September 23 to October 18, 2019. Volume Testing was performed by Secretary of State Staff on September 23 and October 11, 2019. Source Code Review, Security and Telecommunications Testing, and an Accessibility Review were performed by SLI Compliance from September 10 to October 7, 2019.

2. Functional Testing Summary

Functional examination and review was conducted as if the California Secretary of State was a jurisdiction that just purchased KNOWiNK's Poll Pad 3 system. KNOWiNK's Poll Pad 3 Use Procedures documentation was executed to install all hardware and software per the vendor's instruction. All electronic poll book functions to be utilized by a jurisdiction were exercised.

Functional Testing

Functional Testing began on September 23, 2019, and proceeded through October 18, 2019. KNOWiNK provided five (5) electronic poll books (iPad's with iOS version 12.1.4, and the KNOWiNK Poll Pad 3 application), access to the KNOWiNK Precinct Central Console website (ePulse), and two printers (Star Micronics TSP650II and TSP700II) for functional testing.

For approximately three (3) weeks, Secretary of State Staff exercised the functionality of the electronic poll book according to the vendor provided technical documentation. The exercises included verification of expected functions of the system as outlined in the vendor provided technical documentation, execution of test cases and verification of the electronic poll book's compliance with State statutes and regulations.

Issues & Observations:

During Functional Testing, approximately twenty-one (21) issues were identified. All twenty-one (21) issues required mitigation.

a. Documentation

Fifteen (15) issues were related to minor documentation discrepancies and were provided to KNOWiNK for modification. The documentation was subsequently modified and the changes verified by Secretary of State Staff.

b. Hardware

There were no issues related to the hardware.

c. Software

Six (6) issues were related to the software and were provided to KNOWiNK for mitigation. The mitigations were implemented and verified by Secretary of State Staff. The issues and mitigations were as follows:

i. The Poll Pad 3 application had the capability to store a voter's California driver's license number, and Social Security Number or portion thereof. This data is provided to the Poll Pad 3 application during the import of the voter file from the jurisdiction's election management system. Per California Code of Regulations section 20150(2), electronic poll books shall not contain a voter's (a) California driver's license number, or (b) Social Security Number or portion thereof. This was mitigated by excluding the California driver's license number and Social Security Number during the voter file import from the jurisdiction's election management system.

ii. The Poll Pad 3 application had the capability to process same day voter registration (conditional voter registration). This functionality requires a California driver's license number and/or the last four numbers of a voter's Social Security Number be provided and input into the Poll Pad 3. Per California Code of Regulations section 20150(2), electronic poll books shall not contain a voters (a) California driver's license number, or (b) Social Security Number or portion thereof. This was mitigated by disabling the "Add Voter (conditional voter registration)" functionality.

iii. All iPad operating system (iOS) settings (e.g., updates, date and time, WiFi, etc.) were accessible and capable of manipulation. This was mitigated by setting the device in Guided Access Mode. Guided Access restricts the iOS device to the Poll Pad 3 application.

iv. The Poll Pad 3 application does not require a user specific username and password be entered when accessing the application. This was mitigated by adjusting the iPad settings to require a password anytime the iPad is accessed. However, user specific usernames and passwords are not available for the Poll Pad 3 application.

v. The "Cancel" option of the Absentee Scanner functionality did not work. This is a known issue to KNOWiNK. This was mitigated by disabling the Absentee Scanner functionality and prohibiting its use in California. The Absentee Scanner functionality is not necessary to complete the voter check in process on the Poll Pad 3 application.

vi. Upon deploying the Poll Pad 3 application to the electronic poll books, the devices loaded to a lock screen that would not allow the entry of a password. It was determined that the issue occurred

because the deployments were performed while the devices were still in Guided Access mode. This was mitigated by re-deploying the application to the devices with Guided Access mode turned off. Instructions explaining that devices must be removed from Guided Access mode prior to removing and re-installing applications were added to the use procedures.

3. Software (Source Code) Review Testing Summary

SLI Compliance performed a review of the Poll Pad 3 source code. During the testing, SLI conducted a security and integrity review of the Poll Pad 3 source code. The discrepancies and vendor mitigations/responses are listed in the following table:

Table 3A: Software (Source Code) Review Testing Summary

Discrepancy	Vendor Mitigation/Response
A code comment was left in In file: vf_voter.rb.	The comment is for a parser completely unrelated to California. The parser is no longer being used and will be addressed in the next version of the system.
A to-do comment was left in In file: add_voter_parser.rb.	The comment is regarding formatting a three line address in the Add Voter module. California does not use three line simple addresses and would be unaffected by this. This will be addressed in a future version of the system.
A to-do comment was left in In file: language_response.rb.	This is a code quality comment and system functionality is not affected. This will be addressed in a future version of the system.
A to-do comment was left in In file: poll_worker_checkin.rb.	This is a code quality comment. System functionality is not affected. This will be addressed in the next version of the system.
To-do comments state specific defined items aren't persisting in the database.	This is a comment exclusive to the automated test environment and production system functionality is not affected. This will be addressed in a future version of the system.
General to-do comment stating servers are being run in development mode.	Servers are not being run in development mode and production system functionality is not affected. The comment is referencing that all files are being called every time a specific file is called. This uses marginally more memory than necessary. This will be addressed in a future version of the system.
Comments about app instability after running the import function.	This is related to the iSync drive, and specifically the initial election import utilizing the iSync drive. The iSync drive is not certified for use in California.
No evidence was found of use of encryption for peer to peer traffic.	All peer to peer traffic is salted and encrypted with keys obtained from ePulse that are unique to each customer's account.

It appears that syncable exporter can be restarted, but there is no checking to see if the input may be modified between runs.	There are a variety of security protections in place to prevent this: 1) Meraki Mobile Device Management locks the iPad down to not allow Airdropping files outside of the application. Even if Airdrop were enabled, the user would not be able to place them back into the application since the app folder is not an allowed "Airdrop to" location. 2) The app is run in production mode, not in debug mode, so USB modification of files is not allowed. 3) The authorization token for the device is encrypted in the iOS Keychain to prevent another device from impersonating the Poll Pad from another computer. This will also be addressed in next version of the system with the addition of built in jailbreak protection, so if the user jailbreaks a device, the user may no longer use the software until jailbreaking has been removed and the device has been re-authenticated.
The software has the ability to delete log files and that activity is not itself logged, violating standard security practice.	This is referencing a piece of remnant code from a previous build that allowed users to reset and clear the device logs. The ability to execute this code was removed from the system in separate, but also previous build. However, portions of the code base remain. It is no longer possible for the user to delete the logs. The remnant code will be addressed in a future version of the system.
Controllers should not throw model windows. Should be done by the view to maintain proper architecture.	While this does not follow standard best practices, system functionality is not affected. This will be addressed in a future version of the system.
Severe errors should log (not display) traceback for forensic purposes (e.g. i.backtrace.inspect) for all fatal conditions.	FatalError calls are logged to device output by default on iOS, same as fatal errors thrown from the system. BugSee, an application crash detector, can also be utilized to record fatal errors.
Call to SecureRandom.hex(24) to generate unique ID should be checked against current database before acceptance, otherwise a duplicate may occur.	KNOWiNK acknowledges this as a finding although there is low probability of an occourance. This will be addressed in the next version of the system.

4. Security and Telecommunications Testing

SLI Compliance performed Security and Telecommunications testing on the Poll Pad 3. During the testing, a full review of the KNOWiNK Poll Pad 3 electronic poll book system was performed to analyze for findings against applicable requirements. The discrepancies and vendor mitigations/responses are listed in the following table:

Table 4A: Security and Telecommunications Testing	
Note: The following discrepancies pertain to KNOWiNK's ePulse web-based monitoring platform and were considered of minimal overall impact to the overall security of the KNOWiNK Poll Pad 3 solution by SLI as all discrepancies would require Election Official insider or Vendor insider access.	
Discrepancy	**Vendor Mitigation/Response**
Cross-Site Scripting (DOM-Based)	The system utilizes cross site scripting protections built into rails. In addition, KNOWiNK will implement a web application firewall (WAF) in the next version of the system. WAF on Amazon Web Services analyzes traffic and has rules enabled to protect against cross site scripting.
Session Token in URL	KNOWiNK acknowledges this is an issue and this will be addressed in the next version of the system.
Cookie Scoped to Parent Domain	KNOWiNK will analyze their cookie payload and this will be addressed in the next version of the system.
Open Redirection (DOM-Based)	Areas where the window location or query is used are all sanitized by the server prior to processing. Additionally, KNOWiNK will review the listed locations and verify that all of them are properly handled in a future version of the system.
Password Field with Autocomplete Enabled	KNOWiNK will add the autocomplete="off" attribute to all passwords in a future version of the system. This will disable all password programs from remembering passwords.
Content Type Incorrectly Stated	The system utilizes cross site scripting protections built into rails. In addition, KNOWiNK will implement a web application firewall (WAF) in the next version of the system. WAF on Amazon Web Servcies analyzes traffic and has rules enabled to protect against cross site scripting.
Strict Transport Security not Enforced	The system currently redirects any HTTP calls to HTTPS, to prevent any man in the middle attacks during the redirect. KNOWiNK will enable HSTS to remediate this issue in in the next version of the system.
Link Manipulation (DOM-based)	This code snippet came from internal jQuery source code. The latest version of the library will be upgraded to make sure any necessary security fixes have been applied in the next version of the system.

5. Volume Testing Summary

Volume Testing was conducted on September 23 and October 11, 2019. For approximately two days, Secretary of State Staff processed approximately 150 voters on

each printer (Star Micronics TSP650II, Star Micronics TSP7000II, and Brother PocketJet PJ-763). No unexpected results or issues were encountered during the Volume test.

6. Accessibility

SLI evaluated the Poll Pad 3 against the applicable portions of the Web Content Accessibility Guidelines (WCAG) 2.0 and Section 508 of the Rehabilitation Act of 1973 for compliance. The discrepancies and vendor mitigations/responses are listed in the following table:

Table 6A: WCAG 2.0 Review	
NOTE: The WCAG 2.0 examination included 93 requirements.	
Discrepancy	**Vendor Mitigation/Response**
Guideline 1.1 Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.	
1.1.1 Non-text Content (Level A) - All images, form image buttons, and image map hot spots have appropriate, equivalent alternative text.	The images referenced in this finding are equipped with text to speech capability built in when utilizing iPad Voice Over functionality. The VoinceOver functionality must be enabled via the iPad settings.
1.1.1 Non-text Content (Level A) - Images that do not convey content, are decorative, or with content that is already conveyed in text are given null alt text (alt="") or implemented as CSS backgrounds. All linked images have descriptive alternative text.	The images referenced in this finding are equipped with text to speech capability built in when utilizing iPad Voice Over functionality. The VoinceOver functionality must be enabled via the iPad settings.
1.4.8 Visual Presentation (Level AAA) - Blocks of text over one sentence in length do not require horizontal scrolling when the text size is doubled.	As a keyboard can be utilized to increase text size, KNOWiNK can provide a physical Bluetooth keyboard for purchase to the county that can be used with Poll Pad to meet this requirement.
Guideline 2.1 - Keyboard Accessible: Make all functionality available from a keyboard.	
2.1.1 Keyboard (Level A) - All page functionality is available using the keyboard, unless the functionality cannot be accomplished in any known way using a keyboard (e.g., free hand drawing).	KNOWiNK can provide a physical Bluetooth keyboard for purchase to the county that can be used with Poll Pad to meet this requirement.
2.1.2 No Keyboard Trap (Level A) - Keyboard focus is never locked or trapped at one particular page element. The user can navigate to and from all navigable page elements using only a keyboard.	KNOWiNK can provide a physical Bluetooth keyboard for purchase to the county that can be used with Poll Pad to meet this requirement.

2.1.3 Keyboard (No Exception) (Level AAA) - All page functionality is available using the keyboard.	KNOWiNK can provide a physical Bluetooth keyboard for purchase by the county that can be used with Poll Pad to meet this requirement.

Table 6B: Section 508 Review	
Note: The Section 508 examination included 50 requirements.	
Discrepancy	**Vendor Mitigation/Response**
§ 1194.21 Software applications and operating systems - (c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.	The built in iOS assistive technology tracks the focus and allows users to navigate through the application. The assistive technology functionality must be enabled via the iPad settings.
§ 1194.21 Software applications and operating systems - (d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.	The image referenced in this finding is equipped with text to speech capability built in when utilizing iPad Voice Over functionality. The VoinceOver functionality must be enabled via the iPad settings.
§ 1194.22 Web-based intranet and internet information and applications - (a) A text equivalent for every non-text element shall be provided (e.g., via “alt”, “longdesc”, or in element content).	The images referenced in this finding are equipped with text to speech capability built in when utilizing iPad Voice Over functionality. The VoinceOver functionality must be enabled via the iPad settings.
§ 1194.22 Web-based intranet and internet information and applications - (k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of these standards, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	A text-only page is not necessary as the application complies with the provisions of these standards when built in iOS assistive technology is exercised.
§ 1194.22 Web-based intranet and internet information and applications - (n) When electronic forms are designed to be completed online, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	End users can utilize assistive technologies such as Voice Over and Switch Control in conjunction with an optional Bluetooth keyboard. KNOWiNK can provide a physical Bluetooth keyboard for purchase to the county that can be used with Poll Pad to meet this requirement.

§ 1194.23 Telecommunications Products - (k) Products which have mechanically operated controls or keys, shall comply with the following: (1) Controls and keys shall be tactilely discernible without activating the controls or keys.	The built-in Voice Over screen reader provides audio and visual feedback for touchscreen controls without requiring the user to activate them. The Home, Sleep/Wake, and Volume rocker switch are also tactilely discernible. The Volume rocker switch must be pressed to determine the current volume setting. Features such as Voice Over must be enabled and activated by the jurisdiction.
§ 1194.25 Self-contained, closed Products - (c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	The iPad includes a number of Accessibility features to support motor control; AssistiveTouch which provides an alternative set of screen gestures for users who may have difficulty with touch gestures and requires only a single finger or apparatus to operate, Switch Control which provides an alternate method for navigating and making onscreen selections, and Touch Accommodations which provide a means to adjust how the screen responds to touches, such as controlling how long you touch before it's recognized or whether it ignores repeated touches.
§ 1194.25 Self-contained, closed Products - (e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at any time.	The built-in Voice Over screen reader provides audio and visual feedback for touchscreen controls. Also, Voice Over can be controlled via key commands entered on a standard Bluetooth keyboard. KNOWiNK can provide a physical Bluetooth keyboard for purchase to the county that can be used with Poll Pad to meet this requirement.
§ 1194.25 Self-contained, closed Products - (f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.	Although there is no ability to automatically reset the volume to the default level after every use, the iPad device comes equipped with a tactilely discernible volume rocker switch that can be pressed to adjust the volume setting.

§ 1194.26 Desktop and portable Computers - (a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Although the volume buttons, power button and home button on the iPad do not contain tactile reference as to button functionality, the volume buttons are a shared button with a ridge in the middle indicating two functions, the power button and home button are single buttons that are separate and solo on the device.
§ 1194.26 Desktop and portable Computers - (b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Using assistive technologies such as Voice Over and Switch Control in conjunction with an optional Bluetooth keyboard, end users can utilize assistive technologies to meet this requirement. Further optimizations can be made to the application in a future release to more fully meet these requirements. Features such as Voice Over and Switch Control must be enabled and activated by the jurisdiction. An external Bluetooth keyboard can be purchased by the county.

IV. COMPLIANCE WITH STATE LAWS AND REGULATIONS

Two (2) sections of the California Code of Regulations, sections 20150 and 20158, describe in detail the requirements any electronic poll book system must meet in order to be approved for use in California elections. These sections are described in detail and analyzed for compliance below.

1) §20150(a)(1): An electronic poll book shall contain, at a minimum, all of the following voter registration data: Name, Address, District/Precinct, Party preference, Voter status, Whether or not the voter has been issued a vote by mail ballot, Whether or not the vote by mail ballot has been recorded as accepted by the elections official, and Whether or not the voter's identification must be verified.
   The system meets this requirement.

2) §20150(a)(2): An electronic poll book shall not contain the following voter registration data: California driver's license number, and Social Security Number or portion thereof.
   The system meets this requirement.

3) §20158(a): The electronic poll book shall not be connected to a voting system at any time.
   The system meets this requirement.

4) §20158(b): The electronic poll book shall demonstrate that it accurately processes all activity as prescribed in the vendor's application packet.
   The system meets this requirement.

5) §20158(c): The electronic poll book shall be capable of operating for a period of at least two hours on backup power, such that no data is lost or corrupted nor normal operations interrupted. When backup power is exhausted, the electronic poll book shall retain the contents of all memories intact.
   The system meets this requirement.

6) §20158(d): The electronic poll book shall be compatible with: all voter registration election management systems used in the State of California, including any software system (middle ware) used to prepare the list of voters for the equipment, and any hardware attached to the electronic poll book (e.g. bar code scanners, signature capture devices, transport media, printers, etc.).
   The system meets this requirement.

7) §20158(e): An electronic poll book shall contain all of the following voter registration data: Name, Address, District/Precinct, Party preference, Voter status, Whether or not the voter has been issued a vote by mail ballot, Whether or not the vote by mail ballot has been recorded as accepted by the elections official, and Whether or not the voter's identification must be verified.
   The system meets this requirement.

8) §20158(f): The electronic poll book shall encrypt all voter registration data at rest and in transit, utilizing a minimum of Advanced Encryption Standard (AES) 256-bit data encryption, based on recognized industry standards.
The system meets this requirement.

9) §20158(g): The electronic poll book shall provide reliable transmission of voter registration and election information.
The system meets this requirement.

10) §20158(h): The electronic poll book shall have the capability to store a local version of the electronic list of registered voters to serve as a backup.
The system meets this requirement.

11) §20158(i): The electronic poll book shall produce a list of audit records that reflect all actions of the system, including in-process audit records that display all transactions. Such audit records shall be able to be exported in non-proprietary, human readable format.
The system meets this requirement.

12) §20158(j): The electronic poll book shall enable a poll worker to easily verify that the electronic poll book: has been set up correctly, is working correctly so as to verify the eligibility of the voter, is correctly recording that a voter has voted, and has been shut down correctly.
The system meets this requirement.

13) §20158(k): After the voter has been provided with a ballot, the electronic poll book shall permit a poll worker to enter information indicating that the voter has voted at the election. The electronic poll book shall have the capability to transmit this information to every other electronic poll book in the county utilizing the same list of registered voters.
The system meets this requirement.

14) §20158(l): The electronic poll book shall permit voter activity to be accurately uploaded into the county's voter registration election management system.
The system meets this requirement.

15) §20158(m): During an interruption in network connectivity of an electronic poll book, all voter activity shall be captured and the electronic poll book shall have the capacity to transmit that voter activity upon connectivity being restored.
The system meets this requirement.

16) §20158(n): If the electronic poll book uses an electronic signature capture device, the device shall: produce a clear image of the electronic signature capable of verification, and retain and identify the signature of the voter
The system meets this requirement.

17) §20158(o): The electronic poll book shall have the capacity to transmit all information generated by the voter or poll worker as part of the process of receiving a ballot, including the time and date stamp indicating when the voter voted, and the

electronic signature of the voter, where applicable, to the county's voter registration election management system.
The system meets this requirement.

18) §20158 (p): The Secretary of State recommends electronic poll books not be enabled or installed with any technologies delineated in the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 wireless local area network (LAN) standards. However, should an electronic poll book be enabled or installed with a wireless technology, the following shall be utilized: a minimum of 256-bit data encryption, a minimum of Wireless Protected Access (WPA) 2 security enabled, compliance with Payment Card Industry Data Security Standards (PCI DSS) version 3.2, a dedicated wireless access point (WAP) or connection utilized only by county employees or elections officials and void of public or guest access, and devices equipped with one or more of the following: biometric authentication, multi-factor authentication, compliance with current PCI DSS version 3.2 password requirements, or remote wipe technology set to automatically clear a device upon 8 eight failed login attempts.
The system meets this requirement.

19) §20158 (q): Jurisdictions utilizing a wide area network (WAN) to transmit voter registration data from an electronic poll book to a centralized location shall utilize one of the following: a dedicated leased line, a hardware virtual private network (VPN), or a dedicated cellular connection void of public or guest access.
The system meets this requirement.

20) §20158 (r): The electronic poll book shall be reviewed for accessibility.
The system meets this requirement.

V. CONCLUSION

The KNOWiNK Poll Pad 3, Version 2.4.8.01, in the configuration tested and documented by the California Secretary of State, is compliant with all California laws.